

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

AWAPATENT AB  
Platensgatan 9 C  
SE-582 20 LINKÖPING  
SWEDEN

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year)

09-06-2005

Applicant's or agent's file reference

21018792

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/SE 2005/000310

International filing date (day/month/year)

02.03.2005

Priority date (day/month/year)

03.03.2004

International Patent Classification (IPC) or both national classification and IPC

F24C 7/06, F24H 3/04

Applicant

FERGAS AB et al

## 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further opinions, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/SE

Patent- och registreringsverket

Box 5055

S-102 42 STOCKHOLM

Facsimile No. +46 8 667 72 88

Authorized officer

Marianne Dickman/MP

Telephone No. +46 8 782 25 00

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/SE 2005/000310

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	<u>2-6, 9, 11</u>	YES
	Claims	<u>1, 7-8, 10</u>	NO
Inventive step (IS)	Claims	<u></u>	YES
	Claims	<u>1-11</u>	NO
Industrial applicability (IA)	Claims	<u>1-11</u>	YES
	Claims	<u></u>	NO

**2. Citations and explanations:**

Reference is made to the following document:

D1: GB996056 A

The claimed invention relates to a fan heater. Interacting members are provided on the heating element and on the blower fan in order to hold the heating element in position relative the blower fan. Claim 1 is worded to define a fan heater for an electrical fireplace. However, the claims do not include any technical features related to the cooperation with the electrical fireplace. Therefore, the cooperation of the heating element and the blower fan is independent of the "electrical fireplace". Thus, the expression "for an electrical fireplace" is not essential for the invention and is ignored. Also, as it says in the description, it is common knowledge to use fan heaters in electrical fireplaces.

D1 relates to a fan heater including a blower fan unit with an outlet duct. A unit with heating elements can be mounted to the outlet duct a by use of projections engaging slots in the wall of the duct, see page 3 lines 4-6. A person skilled in the art would design such projections to be resilient in order to build up snap lock members. Further, the previously known device is simple to fabricate and assemble (page 1 lines 35-39). The known solution also makes the parts simple to disassemble, in correspondence with the present invention.

.../...

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/SE 2005/000310

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

A fan heater as stated in claims 1 and 7, a heating element as stated in claim 8 and a blower fan as stated in claim 10 are previously known from D1 and lack novelty. Further, the dependent claims 2-6, 9 and 11 only reveal such features considered obvious to a skilled person. Therefore, the subject matter of claims 2-6, 9 and 11 lacks inventive step.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/SE 2005/000310

**Box No. VIII Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawing or on the question whether the claim are fully supported by the description, are made:

Claims 9 and 11 are incorrectly related to claim 6.



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 04 00 4971

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	GB 2 251 935 A (BASIC ENGINEERING) 22 July 1992 (1992-07-22)	1,6-8,10	F24C7/04 F24H3/04 F24H9/18
Y	* page 5, line 19 - page 6, line 11; figures 3-5 *	2-5,9,11	
A	* page 9, lines 8-28 *		
	* page 6, line 6 *	2,9,11	
X	US 3 742 189 A (CONROY R ET AL) 26 June 1973 (1973-06-26)	1,6-8,10	
	* column 2; claim 1; figures 1,2 *		
X	DE 12 12 703 B (BRAUN AG) 17 March 1966 (1966-03-17)	1,6-8,10	
	* column 5, lines 44-55; figures 1,2 *		
X	US 2 986 622 A (BRAZDA ROY W) 30 May 1961 (1961-05-30)	1,6-8,10	
	* column 2; figure 1 *		
X	DE 39 08 512 A (MAICO ELEKTROAPPARATE) 28 September 1989 (1989-09-28)	1,6-8,10	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
	* columns 5-6; figures 1-3 *		F24C F24H
X	US 4 737 616 A (WEN-YING LEE) 12 April 1988 (1988-04-12)	1,6-8,10	
	* figure 3 *		
X	US 2 015 251 A (GEORGE BROWNING) 24 September 1935 (1935-09-24)	1,6-8,10	
	* figure 1 *		
X	US 5 513 296 A (GOLDSTEIN ANDREW M) 30 April 1996 (1996-04-30)	1,6-8,10	
	* the whole document *		
X	US 4 703 153 A (PELONIS KOSTA) 27 October 1987 (1987-10-27)	1,6-8,10	
	* the whole document *		
-/--			
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 14 July 2004	Examiner Merkt, A
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1503 03.82 (P04C01) 2



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 04 00 4971

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	US 5 443 364 A (MISTRY MAYANK C ET AL) 22 August 1995 (1995-08-22) * column 4, line 41 - column 5, line 19; figures 3-5 *	2-5,9,11	
Y	US 4 809 593 A (ASSELBERGS CHRISTOPHE K J) 7 March 1989 (1989-03-07) * column 2, lines 29-46; figure 3 *	2-5,9,11	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 14 July 2004	Examiner Merkt, A
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 (03.92) (P4/C01) 2

# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 04 00 4971

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-07-2004

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
GB 2251935	A	22-07-1992	IE	914515 A1	01-07-1992
US 3742189	A	26-06-1973	AU	4681072 A	28-03-1974
			BE	789017 A2	20-03-1973
			CH	539246 A	15-07-1973
			DE	2245861 A1	29-03-1973
			FR	2154144 A5	04-05-1973
			GB	1366791 A	11-09-1974
			IE	36717 B1	02-02-1977
			IT	967624 B	11-03-1974
			LU	66121 A1	17-01-1973
			NL	7212671 A	22-03-1973
			ZA	7206334 A	27-06-1973
DE 1212703	B	17-03-1966	NONE		
US 2986622	A	30-05-1961	NONE		
DE 3908512	A	28-09-1989	DE	3908512 A1	28-09-1989
			DE	8903234 U1	13-07-1989
US 4737616	A	12-04-1988	NONE		
US 2015251	A	24-09-1935	NONE		
US 5513296	A	30-04-1996	US	RE37642 E1	09-04-2002
US 4703153	A	27-10-1987	NONE		
US 5443364	A	22-08-1995	NONE		
US 4809593	A	07-03-1989	CA	1268161 A1	24-04-1990